

CLAIMS

What is claimed is:

1. A digital image capturing module assembly, which comprises:

a lens holder, which has one side defined as a focusing plane, and which is formed with a plurality of aligning posts on the periphery of the focusing plane and is further formed with a plurality of stair-like bulged portions respectively beside the aligning posts;

a photosensitive printed circuit board, which is formed with a plurality of aligning holes corresponding to the aligning posts on the lens holder, and which is mounted on the lens holder by fitting the aligning holes thereof against the aligning posts on the lens holder, with the respective tips of the aligning posts on the lens holder being each melted into a bolting structure to secure the photosensitive printed circuit board firmly in position on the lens holder, with an undergap existing between the photosensitive printed circuit board and the lens holder due to the stair-like bulged portions acting as a stopper against the photosensitive printed circuit board; and

a light-impenetrable sealing layer, which is infiltrated in the undergap between the photosensitive printed circuit board and the lens holder to provide a sealed light-impenetrable effect at the junction between the photosensitive printed circuit board and the lens holder.

2. The digital image capturing module assembly of claim 1, wherein the photosensitive printed circuit board is a CCD-based photosensitive device.

3. The digital image capturing module assembly of claim 1, wherein the photosensitive printed circuit board is a CMOS-based photosensitive device.

4. The digital image capturing module assembly of claim 1, wherein the aligning posts on the lens holder are made of plastics.

5. A method for fabricating a digital image capturing module, comprising:

preparing a lens holder, which has one side defined as a focusing plane, and which is formed with a plurality of aligning posts on the periphery of the focusing plane and is further formed with a plurality of stair-like bulged portions respectively beside the aligning posts;

preparing a photosensitive printed circuit board which is formed with a plurality of aligning holes corresponding to the aligning posts on the lens holder;

mounting the photosensitive printed circuit board onto the lens holder by fitting the aligning holes in the photosensitive printed circuit board against the aligning posts on the lens holder, with an undergap existing between the photosensitive printed circuit board and the lens holder due to the stair-like bulged portions acting as a stopper against the photosensitive printed circuit board;

melting the respective tips of the aligning posts on the lens holder so as to transform the respective tips of the aligning posts into a bolting structure to secure the photosensitive printed circuit board firmly in position on the lens holder; and

dispensing a curable and flowable adhesive agent against the undergap between the photosensitive printed circuit board and the lens holder, allowing the curable and flowable adhesive agent to self-infiltrate into and substantially fill up the undergap through capillary attraction to provide a sealed light-impenetrable effect at the junction between the photosensitive printed circuit board and the lens holder.

Ref: 22316-1
(1st draft)

6. The method of claim 5, wherein the photosensitive printed circuit board is a CCD-based photosensitive printed circuit board.

7. The method of claim 5, wherein the photosensitive printed circuit board is a CMOS-based photosensitive printed circuit board.

8. The method of claim 5, wherein the aligning posts on the lens holder are made of plastics.

* * * * *